Sawmill Cove Apartments | Location: 34.72843N 112.00575W Mobile

| Band (m) | Frequency MHz | Signal Level | Mode | Time: 1015 |
|---|---|---|---|---|
| 10 | 28.500 | S4 | USB | |
| 10 | 28.500 | S9 | FM | |
| 12 | 24.900 | S1 | USB | |
| 12 | 24.900 | S1 | FM | |
| 15 | 21.305 | S2 | USB | |
| 15 | 21.305 | S5 | FM | |
| 17 | 18.130 | S1 | USB | |
| 17 | 18.130 | S3 | FM | |
| 20 | 14.240 | S7 | USB | |
| 20 | 14.240 | S9+60dB | FM | |
| 40 | 7.250 | S7 | LSB | |
| 40 | 7.250 | S9+20dB | FM | |
| 80 | 3.980 | S9+10dB | LSB | |
| 80 | 3.980 | Full Scale | FM | |

Bob Thompson
5290 Williamson Valley
Prescott, AZ 86305



James R. Burtle
Chief, Experimental Licensing Branch
Room 7-A267
445 12th Street SW
Washington, DC 20024

June 17, 2004
Steven G. Pearson
KC7TIL
2085 Howard Place
Prescott, Arizona
86301
1-928-778-0502
kc7til@cableone.net

Dear Sirs,

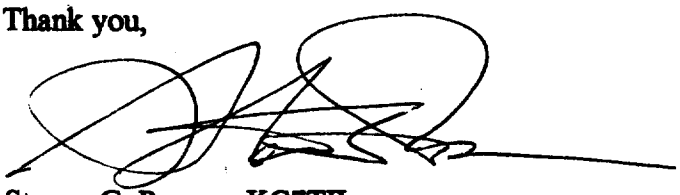
I would like to file a formal complaint of interference on the amateur HF bands I noticed in the Cottonwood Arizona area. I understand there is a temporary experimental license for Broad Band over Power Lines in the area. I recorded a detailed log of signal strength readings in three areas of Cottonwood. The first was a baseline measurement out near the airport to see what the propagation and noise levels were on that day and time in comparison to the reading I got in proximity to the BPL sites. I was stunned at the amount of interference I recorded when anywhere near the sites using BPL. The attached log sheets should be self explanatory.

It should be obvious that interference such as what is documented here will make amateur radio HF operation impossible anywhere near a BPL installation. This, during a time of possible reliance on the amateur radio service for emergency communication that may arise due to natural or terrorist events.

Amateur radio operators have always been ready and willing to donate their time and use of their equipment during times of need. To relegate this vast resource to obscurity at a time when the country may need to call on them in a crisis situation is mind boggling.

Please consider this a formal complaint.

Thank you,



Steven G. Pearson KC7TIL

Radio: Kenwood TS-450S Antenna: Webster Bandspanner
Operator: Steve Pearson KC7TIL

Cottonwood Airport Baseline Location: 34.735N 112.039W Mobile

| Band (m) | Frequency MHz | Signal Level | Mode | Time: | 0830 |
|---|---|---|---|---|---|
| 10 | 28.500 | S4 | USB | | |
| 10 | 28.500 | S5 | FM | | |
| 12 | 24.900 | S2 | USB | | |
| 12 | 24.900 | S3 | FM | | |
| 15 | 21.305 | S1 | USB | | |
| 15 | 21.305 | S0 | FM | | |
| 17 | 18.130 | S1 | USB | | |
| 17 | 18.130 | S2 | FM | | |
| 20 | 14.240 | S6 | USB | | |
| 20 | 14.240 | S9 | FM | | |
| 40 | 7.260 | S1 | LSB | | |
| 40 | 7.260 | S2 | FM | | |
| 80 | 3.980 | S7 | LSB | | |
| 80 | 3.980 | S9 | FM | | |

American Heritage Academy Location: 34.73272N 112.00520W Mobile

| Band (m) | Frequency MHz | Signal Level | Mode | Time: | 0915 |
|---|---|---|---|---|---|
| 80 | 3.980 | S9+10db | LSB | | |
| 80 | 3.980 | S9+60dB | FM | | |
| 40 | 7.260 | S9+10dB | LSB | | |
| 40 | 7.260 | S9+60dB | FM | | |
| 20 | 14.240 | S9+20dB | USB | | |
| 20 | 14.240 | S9+60dB | FM | | |
| 17 | 18.130 | S5 | USB | | |
| 17 | 18.130 | S3 | FM | | |
| 15 | 21.305 | S9 | USB | | |
| 15 | 21.305 | S9+60dB | FM | | |
| 12 | 24.900 | S3 | USB | | |
| 12 | 24.900 | S3 | FM | | |
| 10 | 28.500 | S9+20dB | USB | | |
| 10 | 28.500 | S9+60dB | FM | | |

Sawmill Cove Apartments  Location: 34.72843N 112.00575W Mobile

| Band (m) | Frequency MHz | Signal Level | Mode | Time: | 1015 |
|---|---|---|---|---|---|
| 10 | 28.500 | S4 | USB | | |
| 10 | 28.500 | S9 | FM | | |
| 12 | 24.900 | S1 | USB | | |
| 12 | 24.900 | S1 | FM | | |
| 15 | 21.305 | S2 | USB | | |
| 15 | 21.305 | S5 | FM | | |
| 17 | 18.130 | S1 | USB | | |
| 17 | 18.130 | S3 | FM | | |
| 20 | 14.240 | S7 | USB | | |
| 20 | 14.240 | S9+60dB | FM | | |
| 40 | 7.250 | S7 | LSB | | |
| 40 | 7.250 | S9+20dB | FM | | |
| 80 | 3.980 | S9+10dB | LSB | | |
| 80 | 3.980 | Full Scale | FM | | |

STEVEN & MICHELE PEARSON
2065 HOWARD PLACE
PRESCOTT, AZ 86301

PHOENIX AZ 850 S
PM
18 JUN
2004

Federal Communications Commission
Attn: James R. Burtle
Chief, Experimental Licensing Branch
Room 7-A267
445 12th St SW
Washington, DC 20024

RECEIVED & INSPECTED
JUN 29 2004
FCC MAILROOM

**James Burtle**

**From:** Steven Pearson [kc7til@cableone.net]
**Sent:** Friday, June 18, 2004 12:15 AM
**To:** Anh Wride
**Cc:** James Burtle; Riley Hollingsworth; Alan Stillwell
**Subject:** bpl complaint

*I would like to file a complaint of interference I noticed in the Cottonwood Arizona area while I was operating my HF mobile station. I noticed a tremendous amount of interference in two areas of Cottonwood. One, near the American Heritage Academy on Cherry St. and the other near the Sawmill Cove Apartments. I made some measurements using a Kenwood TS 450S amateur radio on all the amateur bands from 3.5 MHz to 29 MHz and was amazed at the strength of the interference. I understand that there is a temporary license issued for experimentation of Broad Band over Power lines in the area. As a licensed operator on the bands listed above, I find it unacceptable that a situation such as this can be allowed to continue. I also made some base line measurements in the Cottonwood area away from the above mentioned sites and have a very detailed log of signal strength readings in a spreadsheet format if you would like me to send them to you. I will be following up this preliminary E Mail with a hard copy sent to you and the cc addresses when I get time in the next few days.*
*Thanks for your time, Steven G. Pearson 2085 Howard Pl. Prescott Arizona 86301 1-928-778-0502 KC7TIL kc7til@cableone.net*

ames Burtle

rom: Ernie & Betsy Cummings [k6xf@commspeed.net]
ent: Friday, June 18, 2004 1:13 PM
o: James Burtle
c: Anh Wride; Alan Stillwell; Riley Hollingsworth; James Burtle
ubject: Re: Interference from Broadband Over Power Line Transmission

tp://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-04-1552A1.doc

y the Chief, Office of Engineering and Technology:
n February 23, 2004, the Commission released a Notice of Proposed Rulemaking (NPRM) in ET Docket Nos. 03-104 & 04-37, seeking comment on proposed rule changes to Part 15 of the Commission's rules to promote the deployment of Broadband over Power Line (BPL) systems. The NPRM was published in the Federal Register on March 17, 2004, establishing a comment date of May 3, 2004, and reply comment date of June 1, 2004. On April 30, the Commission released an Order denying extension of time for comment and reply comment periods in the above captioned proceeding. On May 21, 2004, the National Antenna Consortium (NAC) and The Amherst Alliance (NAC/Amherst) submitted a joint request for extension of time to file reply comments. **For the reasons set forth below, we now extend the reply comments date to June 22, 2004**. Comments should be filed pursuant to the instructions provided in the NPRM.

---- Original Message ----
**From:** Ernie & Betsy Cummings
**To:** James Burtle
**Cc:** Awride@fcc.gov ; Astillwe@fcc.gov ; Rholling@fcc.gov ; jburtle@fcc.gov
**Sent:** Friday, June 18, 2004 9:57 AM
**Subject:** Fw: Interference from Broadband Over Power Line Transmission

Mr. Burtle....

Please reference FCC
ET Docket 04-37
http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6515783486

Which is open for comments to the FCC until June 22, 2004

Thank you.....

F. Ernie Cummings

---- Original Message ----
**From:** Ernie & Betsy Cummings
**To:** James Burtle
**Sent:** Thursday, June 17, 2004 3:26 PM
**Subject:** Re: Interference from Broadband Over Power Line Transmission

Mr. Burtle....

Thank you for your reply.

I need your help in understanding the FCC procedures in this matter.
As I understand your E-Mail I should not send the FCC an interference complaint.
All complaints should go to the companies or individuals that are generating the interference.

In addition, I understand that I should research the local businesses and homes to find the source of interference, and contact them. And you only need a copy of the letter to whomever I find in Cottonwood, Arizona that is generating interference throughout the HF spectrum.

If I do find the source of interference, how do I have them cease transmitting ?

Thank you for your help in this matter.

Floyd E. Cummings (Ernie)
Retired: NASA, USAF, US Department of State
++++++++++++++++++++++++++++++++++

---- Original Message ----
**From:** James Burtle
**To:** Ernie & Betsy Cummings
**Sent:** Thursday, June 17, 2004 10:12 AM
**Subject:** RE: Interference from Broadband Over Power Line Transmission

Mr. and Mrs Cummings,

Thank you for your interference complaint. We have noted it. Please send your complaints to the system operators before sending them to the FCC in order to give them an opportunity to fix the problem. The appropriate individuals to send the complaints to can usually be found by contacting the power company. You may copy us when you send the complaint to them.

Thank you,

Jim Burtle

-----Original Message-----
**From:** Ernie & Betsy Cummings [mailto:k6xf@commspeed.net]
**Sent:** Wednesday, June 16, 2004 11:11 PM
**To:** Anh Wride; Alan Stillwell; Riley Hollingsworth; James Burtle
**Subject:** Interference from Broadband Over Power Line Transmission

To: Federal Communications Commission

From: Floyd E. Cummings - K6XF (Ernie)

Subject: Report of Harmful Interference
From a Broadband Over Power Line Transmission
COTTONWOOD, ARIZONA 86326

**Please open the attached file in MS Word**

Please reply to this E-Mail at:
k6xf@commspeed.net
or
ernie@cummings.net

Thank You....

**James Burtle**

**From:** ernie@cummings.net
**Sent:** Monday, June 28, 2004 1:26 PM
**To:** James Burtle
**Subject:** Cottonwood, Arizona

June 28, 2004

Electric Broadband LLC15
15 North Mill Street,
Nyack, NY 10960

COTTONWOOD, Arizona has Broadband Over Powerline interference

We are currently experiencing broad radio frequency interference coming from two experimental BPL sites within the city limits of Cottonwood, Arizona. The interference is so strong and so broad across the HF radio spectrum that the reception on our radios is being made difficult to nearly impossible in the frequency range of 3.0 Khz to 29 Mhz.

Floyd (Ernie) Cummings
133 Lampliter Village
Clarkdale, AZ 86324
928-649-3562
ernie @cummings.net

The FCC has granted Special Temporary Authorization to Electric Broadband 15 North Mill Street, Nyack, NY 10960 to operate a BPL system occupying the frequency range 2.46 to 38 MHz. Call Sign WB9XVP,
Class of station FX, Experimental.
Effective date: January 12, 2004 to July 01, 2004.
(FCC file #0506-EX-ST-2003FX)
The STA grant states, "Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down."

Lance Rosen: lrosen@electricbroadband.com
David Shpigler: shpigler@electricbroadband.com
Info: info@electricbroadband.com

APS
PO Box 53933 Sta. 3200
Phoenix, AZ
85072-3933

Awride@fcc.gov
Astillwe@fcc.gov
Rholling@fcc.gov
jburtle@fcc.gov

**Report of Harmful Interference From a Broadband Over Power Line Trial or Deployment**

RECV'D & INSPECTED
JUN 21 2004
FCC-CSC MAILROOM

Name of complainant: GREGORY A. ALLEN

Call sign (if applicable): N6WCD

Station location: 4605 SUNSHINE TRAIL HC-30 BOX 933-I AND MOBILE

Mailing address (if different): _____

City, State, Zip: PRESCOTT, AZ. 86305

Telephone: (928) 771-1086 Email: GREGS@COMMSPEED.NET

Description of Interference: VERY LOUD NOISE IN COTTONWOOD AZ AREA (MOBILE) REFFERENCE ATTACHED CHART

Description of Description of your station

YAESU FT-897 ALL MODE TRANSCEIVER

Receiver(s) affected: FT-897

Antenna type: WEBSTER BAND STACKER

Antenna location: (MOBILE) IN COTTON WOOD AZ.

Distance of antenna from own house (feet):

35 MI (MOBILE)

Distance of antenna from neighboring houses (feet):

50 FT. FROM MOBILE

Distance of antenna from power distribution line or equipment (feet): 30 FT.

Log of interference:

| Date | Time | Frequency | Receive Mode | Interfering signal strength | Description |
|---|---|---|---|---|---|
| 6-17-04 | 9:30 AM | REF. ATT. CHART. | LSB USB | 20 TO 100 % | VERY LOUD NOISE 60 TO 80 OVER UNABLE TO RECIEVE |

REF. E.C. DOCKET 04-37 (BPL)

NOTE: I ALSO BUILD & FLY RADIO CONTROLL MODEL AIRCRAFT ON FREQ 72 MHZ (FM MODE) USING ONLY ONE (1) WATT. LOOSING CONTROLL OF A 50 LB AIRCRAFT COULD BE VERY DANGEROUS.

Radio: Yaesu FT-897 Antenna: *Webster Bandspanner*
Operators: Greg Allen N6WCD, Steven Pearson KC7TIL, Robert Thompson KC8BOB

**Cottonwood Airport Baseline** **Location:** **34.735N** **112.039W** **Mobile**

| Band (m) | Frequency MHz | Signal Level | Mode | Time: | 0830 |
|---|---|---|---|---|---|
| 10 | 28.500 | S0 | USB | | |
| 10 | 28.500 | S0 | FM | | |
| 12 | 24.900 | S0 | USB | | |
| 12 | 24.900 | S0 | FM | | |
| 15 | 21.305 | S0 | USB | | |
| 15 | 21.305 | S0 | FM | | |
| 17 | 18.130 | S0 | USB | | |
| 17 | 18.130 | S0 | FM | | |
| 20 | 14.240 | S4 | USB | | |
| 20 | 14.240 | S1-S2 | FM | | |
| 40 | 7.260 | S2 | LSB | | |
| 40 | 7.260 | S2 | FM | | |
| 80 | 3.980 | S2 | LSB | | |
| 80 | 3.980 | S3 | FM | | |

CONTROLL

**American Heritage Academy** **Location:** **34.73272N** **112.00520W** **Mobile**

| Band (m) | Frequency MHz | Signal Level | Mode | Time: | 0915 |
|---|---|---|---|---|---|
| 80 | 3.980 | S9+55dB | LSB | | |
| 80 | 3.980 | S9+65dB | FM | | |
| 40 | 7.260 | S9+58dB | LSB | | |
| 40 | 7.260 | S9+82dB | FM | | |
| 40 | 7.260 | S9+82dB | Packet | | |
| 20 | 14.240 | S9+85dB | USB | | |
| 20 | 14.240 | Full Scale | FM | | |
| 17 | 18.130 | S0 | USB | | |
| 17 | 18.130 | S0 | FM | | |
| 17 | 18.130 | S0 | Packet | | |
| 15 | 21.305 | S9+65dB | USB | | |
| 15 | 21.305 | S9+95dB | FM | | |
| 15 | 21.305 | S9+95dB | Packet | | |
| 12 | 24.900 | S0 | USB | | |
| 12 | 24.900 | S0 | FM | | |
| 12 | 24.900 | S0 | Packet | | |
| 10 | 28.500 | S9+75dB | USB | | |
| 10 | 28.500 | Full Scale | FM | | |

| Sawmill Cove Apartments | | | Location: | 34.72843N | 112.00575W | Mobile |
|---|---|---|---|---|---|---|
| **Band (m)** | **Frequency MHz** | **Signal Level** | **Mode** | **Time:** | **1015** | |
| 10 | 28.500 | S9+40dB | USB | | | |
| 10 | 28.500 | S9+40dB | FM | | | |
| 10 | 28.500 | S9+40dB | Packet | | | |
| 12 | 24.900 | S0 | USB | | | |
| 12 | 24.900 | S0 | FM | | | |
| 15 | 21.305 | S0 | USB | | | |
| 15 | 21.305 | S0 | FM | | | |
| 17 | 18.130 | S0 | USB | | | |
| 17 | 18.130 | S0 | FM | | | |
| 20 | 14.240 | S9+50dB | USB | | | |
| 20 | 14.240 | S9+65dB | FM | | | |
| 40 | 7.250 | S9+45dB | LSB | | | |
| 40 | 7.250 | S9+40dB | FM | | | |
| 80 | 3.980 | S9+70dB | LSB | | | |
| 80 | 3.980 | Full Scale | FM | | | |
| 80 | 3.980 | Full Scale | Packet | | | |

**Radio:** Kenwood TS-450S **Antenna:** Webster Bandspanner
**Operators:** Steven Pearson KC7TIL, Robert Thompson KC8BOB, Greg Allen N6WCD

**Cottonwood Airport Baseline** **Location:** 34.735N 112.039W Mobile

| Band (m) | Frequency MHz | Signal Level | Mode | Time: | 0830 |
|---|---|---|---|---|---|
| 10 | 28.500 | S4 | USB | | |
| 10 | 28.500 | S5 | FM | | |
| 12 | 24.900 | S2 | USB | | |
| 12 | 24.900 | S3 | FM | | |
| 15 | 21.305 | S1 | USB | | |
| 15 | 21.305 | S0 | FM | | |
| 17 | 18.130 | S1 | USB | | |
| 17 | 18.130 | S2 | FM | | |
| 20 | 14.240 | S6 | USB | | |
| 20 | 14.240 | S9 | FM | | |
| 40 | 7.260 | S1 | LSB | | |
| 40 | 7.260 | S2 | FM | | |
| 80 | 3.980 | S7 | LSB | | |
| 80 | 3.980 | S9 | FM | | |

**American Heritage Academy** **Location:** 34.73272N 112.00520W Mobile

| Band (m) | Frequency MHz | Signal Level | Mode | Time: | 0915 |
|---|---|---|---|---|---|
| 80 | 3.980 | S9+10db | LSB | | |
| 80 | 3.980 | S9+60dB | FM | | |
| 40 | 7.260 | S9+10dB | LSB | | |
| 40 | 7.260 | S9+60dB | FM | | |
| 20 | 14.240 | S9+20dB | USB | | |
| 20 | 14.240 | S9+60dB | FM | | |
| 17 | 18.130 | S5 | USB | | |
| 17 | 18.130 | S3 | FM | | |
| 15 | 21.305 | S9 | USB | | |
| 15 | 21.305 | S9+60dB | FM | | |
| 12 | 24.900 | S3 | USB | | |
| 12 | 24.900 | S3 | FM | | |
| 10 | 28.500 | S9+20dB | USB | | |

**Sawmill Cove Apartments** **Location:** **34.72843N** **112.00575W** **Mobile**

| Band (m) | Frequency MHz | Signal Level | Mode | Time: | 1015 |
|---|---|---|---|---|---|
| 10 | 28.500 | S4 | USB | | |
| 10 | 28.500 | S9 | FM | | |
| 12 | 24.900 | S1 | USB | | |
| 12 | 24.900 | S1 | FM | | |
| 15 | 21.305 | S2 | USB | | |
| 15 | 21.305 | S5 | FM | | |
| 17 | 18.130 | S1 | USB | | |
| 17 | 18.130 | S3 | FM | | |
| 20 | 14.240 | S7 | USB | | |
| 20 | 14.240 | S9+60dB | FM | | |
| 40 | 7.250 | S7 | LSB | | |
| 40 | 7.250 | S9+20dB | FM | | |
| 80 | 3.980 | S9+10dB | LSB | | |
| 80 | 3.980 | Full Scale | FM | | |

Best Regards,

Bob

GREG ALLEN
4605 SUNSHINE TRAIL
HC-30 BOX 933-I
PRESCOTT AZ. 86305

CERTIFIED MAIL

7004 0750 0000 3910 7797

9264

17325

U.S. POSTAGE
PAID
CHINO VALLEY, AZ
86323
JUN 18, 04
AMOUNT
$4.65
00037244-00

FEDERAL COMMUNICATIONS COMMISSION
ATTN: RILEY HOLLINGSWORTH
1270 FAIRFIELD ROAD
GETTYSBURG, PA. 17325

RECV'D & INSPECTED
JUN 21 2004
FCC-GGS MAILROOM

FIRST CLASS MAIL ENCLOSED

RETURN RECEIPT REQUESTED

17325+7246 1 0

**Report of Harmful Interference From a Broadband Over Power Line Trial or Deployment**

Name of complainant: David Kiggins CRT

Call sign (if applicable): KB7KMR

Station location: 34° 43M 54N 111° 59M 31 SW

Mailing address (if different): c/o 443 Rocking Chair RD Yavapai County

City, State, Zip: Cottonwood Yavapai County Arizona

Telephone: 928-634-8082 Email: kb7kmr@commspeed.net

Description of Interference: From 1.710 Mhz to 30. Mhz

Data Modem clicking noise every 100 khz

I can no longer listen to my short wave broadcast's

Description of station: Ham Radio 160 M to 10 Meters MayPole

Receiver(s) affected: ICOM IC-751A

Antenna type: MAYPOLE 10 to 160 Meters

Antenna location: Next to home 8ft ground

Distance of antenna from own house (feet): metal building ant 25 ft from station

Distance of antenna from neighboring houses (feet):

300+ no noise from neighbors or power lines at station

Distance of antenna from power distribution line or equipment

(feet): first unit .56 miles second unit .71 miles

Log of interference:

| Date | Time | Frequency | Receive Mode | Interfering signal strength | Description |
|---|---|---|---|---|---|
| 06/05/04 | 08.20 | 160m | LSB | 8S | BPL |
| " " " " " " | " " | 80M | " " | 10S | BPL |
| " " " " " " | " " | 40M | | 5S | BPL |
| " " " " " " | " " | 20M | " " | 1S | BPL |
| " " " " " " | " " | 10M | | 3S | BPL |
| 06/16/04 | 02:11 | 1.850<br>5.000 | AM/LSB | 5S | BPL |

Mike Kinney

July 31, 2004

Electric Broadband LLC15
15 North Mill Street
Nyack, NY 10960

Arizona Public Service
Atten: Customer Service
P.O. Box 53933, Sta. 3200
Phoenix, AZ. 85072-3933

Dear Sirs

On behalf of the Verde Valley Amateur Radio Association, I am writing this letter to inform you of the interference issues of the two BPL test sites located here in Cottonwood, AZ to Amateur Radio communications in this area.

A series of tests have been conducted and continue to be conducted since January, 2004 to determine the extent of possible interference issues with your BPL systems to the Medium Frequency (MF) and High Frequency (HF) radio spectrum and specifically to the Amateur Radio frequency allocations. As a result of this testing it has been determined that your BPL systems are causing extreme interference issues within the vicinity of the test sites to the point of completely wiping out Amateur Radio reception. It has also been determined that you are interfering with the fixed site station of David Kiggins, KB7KMR located at 443 Rocking Chair Road, Cottonwood, AZ which is 0.56 miles from the Sawmill Cove BPL site and 0.71 miles from the American Heritage Academy BPL site.

The BPL signals are covering virtually the entire Amateur Radio Spectrum and everything else in between in the vicinity of the BPL sites. If these systems were to deploy throughout this community or any other community, running up and down the power lines in everyone's backyards, Amateur Radio communications along with any other licensed radio services in the 1.8 to 30 Mhz spectrum will cease to exist because of the extreme interference issues. The power lines were never designed to carry RF signals such as Broadband Internet Services over them and what has happened is that you have turned the power lines into radiating long-wire antennas. These types of emissions would probably not be a problem if you were running them through a shielded cable such as other broadband internet services do but running them over unshielded power lines has done nothing than to create an RF nightmare to every Federally Licensed Radio Service in the country operating radio communications in this area.

The Amateur Radio Service is an FCC licensed service under Part 97 of the FCC Regulations. The BPL systems that you are currently testing, in this area is regulated by

Part 15 of the same FCC regulations which clearly stipulates that " Parties responsible for equipment compliance should note that the limits specified in this part will not prevent harmful interference under all circumstances. (15.15 General Technical Requirements (c) and that "Operation of an intentional, unintentional or incidental radiator is subject to the conditions that no harmful interference is caused..." (15.5 General Conditions of Operation (b).

In conclusion, based on the facts of the attached report conducted by the Verde Valley Amateur Radio Association it has been determined that you are in fact causing harmful interference in the vicinity of the BPL test sites and therefore need to cease operations of these test sites in the Cottonwood area immediately as specifically stated in Part 15 of the FCC Rules And Regulations.. We also demand that these BPL systems not be started back up until the interference issues have been addressed and resolved.

Sincerely,

Mike Kinney KU7W
Verde Valley Amateur Radio Association
BPL Interference Committee

Cc:
Federal Communications Technology
Office of Engineering and Technology
Atten: Anh Eride
Room 7-A825 Portals 11
445 12th Street SW Washington, DC 20024

Federal Communications Commission
Atten: Alan R. Stillwell
Room 7-C210
445 12th Street SW
Washington, DC 20024

Federal Communications Commission
Atten: Riley Hollingsworth
1270 Fairfield Road
Gettysburg. PA 17325

Federal Communications Commission
Atten: James R. Burtle
Chief Experimental Licensing Branch
Room 7-A267
445 12th Street SW
Washington, DC 20024

American Radio Relay League
Atten: Ed Hare W1RFI
225 Main Street
Newington, CT 06111

# Cottonwood, AZ. BPL Trial System Radio Frequency Interference Report

**Sponsored by:**

**Verde Valley Amateur Radio Association**
**BPL Interference Committee**

**This Report Prepared by Mike Kinney KU7W**
**July 31, 2004**

# Executive Summary

- The Amateur Radio Operators of Cottonwood have a very grave concern about the interference being caused by the BPL Systems being tested in our community.
- The Verde Valley Amateur Radio Association has formed an organized committee to work with the utility and the provider to investigate interference and work with the utility and contractor to get it promptly resolved.
- Starting in January 2004, a series of tests were taken in the Cottonwood area in order to establish baseline results of normal noise levels common in this area on the Amateur Radio allocated frequencies.
- Starting May 31, 2004 to the present, a series of tests have been taken and continue to be taken in order to establish whether or not the BPL test sites are causing harmful interference to the Amateur Radio Service.
- This report has established a strong level of interference in the spectrum allocated to the Amateur Radio Service not only to mobile stations operating in the vicinity of the test sites but also to the fixed site station of David Kiggins, KB7KMR.
- Interference levels are much stronger than baseline measurements that were made in the general area prior to the implementation of BPL.
- Additional testing is planned and in progress at the present time.
- As there is an open FCC rulemaking on BPL, the information developed about interference must also be provided to the FCC.
- Under FCC rules, that interference must be corrected by the operator of the unlicensed or experimental device causing the interference and they are required to cease operations if licensed services experience harmful interference.
- The Verde Valley Amateur Radio Association insists and demands that the interference be corrected immediately or the system must be shut down except for brief test signals to assess interference mitigation techniques.

# Cottonwood, Az. BPL Trial System
# Radio Frequency Interference Report

**Sponsored by:**
**Verde Valley Amateur Radio Association**
**BPL Interference Committee**

## Introduction:

Upon discovering that Cottonwood, Arizona had been selected as a Broadband Over Power Lines (BPL) test site sponsored by Electric Broadband and Arizona Public Service, the Verde Valley Amateur Radio Association appointed a special committee to study the effects of Broadband Over Power Lines (BPL) to the HF spectrum and most importantly to the Amateur Radio frequency allocations.

A series of tests have been conducted starting in January, 2004 to the present time in order to demonstrate the extent to which BPL signals, from the trial system, interfere with Amateur Radio Communications in the Medium Frequency (MF) and High Frequency (HF) radio spectrum. The data in this report was collected using normally installed antennas for both mobile operations and fixed site operations. With the exception of the spectrum analyzer tests the radio equipment used for these test results are real world, readily available amateur radios that are commonly available on the market today.

Tests by the NTIA have been conducted to show either compliance of BPL systems to applicable FCC Part 15 limits or to model or demonstrate the area over which interference from typical BPL trial system emissions occurs or may occur. While Part 15 contains measurement standards and electromagnetic limits (which are not addressed by this report), it is the intent of this report to assess compliance with Part 15 in its entirety. The Amateur Radio Service is an FCC licensed service under Part 97 of the FCC regulations. The BPL system currently being tested by Electric Broadband and Arizona Public Service is regulated by Part 15 of the same FCC regulations. Part 15 of the FCC regulations clearly stipulates that "Parties responsible for equipment compliance should note that the limits specified in this part will not prevent harmful interference under all circumstances." (15.15 General Technical Requirements. ( C ) ) and that "Operation of an intentional, unintentional or incidental radiator is subject to the conditions that no harmful interference is caused..." (15.5 General Conditions Of Operation. ( B ) ).

The subject tests of this paper were performed using the actual installed antennas of the Amateur Radio stations. The test approach correctly characterizes the harmful interference that is affecting these Amateur Radio stations and also correctly characterizes the harmful interference to any fixed or mobile station in the future throughout the Cottonwood area or the rest of the United States if these BPL systems deploy and run this technology over the power lines in every residential or business's back yards.